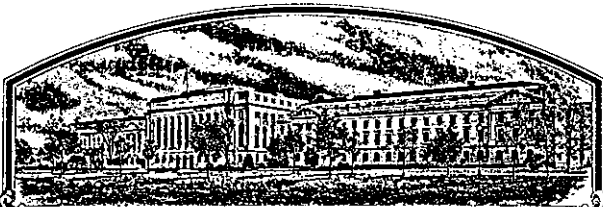


No.

8000067



THE UNITED STATES OF AMERICA

TO ALL TO WHOM THESE PRESENTS SHALL COME:

Holden's Foundation Seeds, Inc.

Whereas, THERE HAS BEEN PRESENTED TO THE

Secretary of Agriculture

AN APPLICATION REQUESTING A CERTIFICATE OF PROTECTION FOR AN ALLEGED NOVEL VARIETY OF SEXUALLY REPRODUCED PLANT, THE NAME AND DESCRIPTION OF WHICH ARE CONTAINED IN THE APPLICATION AND EXHIBITS, A COPY OF WHICH IS HEREUNTO ANNEXED AND MADE A PART HEREOF, AND THE VARIOUS REQUIREMENTS OF LAW IN SUCH CASES MADE AND PROVIDED HAVE BEEN COMPLIED WITH, AND THE TITLE THERETO IS, FROM THE RECORDS OF THE PLANT VARIETY PROTECTION OFFICE, IN THE APPLICANT(S) INDICATED IN THE SAID COPY, AND WHEREAS, UPON DUE EXAMINATION MADE, THE SAID APPLICANT(S) IS (ARE) ADJUDGED TO BE ENTITLED TO A CERTIFICATE OF PLANT VARIETY PROTECTION UNDER THE LAW.

NOW, THEREFORE, THIS CERTIFICATE OF PLANT VARIETY PROTECTION IS TO GRANT UNTO THE SAID APPLICANT(S) AND THE SUCCESSORS, HEIRS OR ASSIGNS OF THE SAID APPLICANT(S) FOR THE TERM OF *eighteen* YEARS FROM THE DATE OF THIS GRANT, SUBJECT TO THE PAYMENT OF THE REQUIRED FEES AND PERIODIC REPLENISHMENT OF VIABLE BASIC SEED OF THE VARIETY IN A PUBLIC REPOSITORY AS PROVIDED BY LAW, THE RIGHT TO EXCLUDE OTHERS FROM SELLING THE VARIETY, OR OFFERING IT FOR SALE, OR REPRODUCING IT, OR IMPORTING IT, OR EXPORTING IT, OR USING IT IN PRODUCING A HYBRID OR DIFFERENT VARIETY THEREFROM, TO THE EXTENT PROVIDED BY THE PLANT VARIETY PROTECTION ACT (34 Stat. 1442, AS AMENDED, 7 U.S.C. 2121 ET SEQ.)

CORN

'LH39'



In Testimony Whereof, I have hereunto set my hand and caused the seal of the Plant Variety Protection Office to be affixed at the City of Washington, D.C. this *26th* day of November in the year of our Lord one thousand nine hundred and eighty-two

Attest:

Kenneth H. Egan

Acting

Commissioner

Plant Variety Protection Office

Grain Division

Agricultural Marketing Service

John R. Block

Secretary of Agriculture

APPLICATION FOR PLANT VARIETY PROTECTION CERTIFICATE

INSTRUCTIONS: See Reverse.

1. VARIETY NAME OR TEMPORARY DESIGNATION LH39	2. KIND NAME Yellow dent	FOR OFFICIAL USE ONLY PV NUMBER 8000067	
3. GENUS AND SPECIES NAME Zea mays	4. FAMILY NAME (Botanical) Gramineae	FILING DATE 3/4/80	TIME 9:00 A.M. P.M.
	5. DATE OF DETERMINATION 1978	FEE RECEIVED \$ 500.00	BALANCE DUE \$ 3/4/80
		\$ 250.00	\$ 9/21/82
6. NAME OF APPLICANT(S) Holden's Foundation Seeds, Inc.	7. ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P.O. Box 299 Williamsburg, Iowa 52361		8. TELEPHONE AREA CODE AND NUMBER 319- 668-1100
9. IF THE NAMED APPLICANT IS NOT A PERSON, FORM OF ORGANIZATION: (Corporation, partnership, association, etc.) Corporation		10. STATE OF INCORPORATION Iowa	11. DATE OF INCORPORATION 1968

12. Name and mailing address of applicant representative(s), if any, to serve in this application and receive all papers:

Mr. Art Johnson
Holden's Foundation Seeds, Inc.
P.O. Box 299
Williamsburg, Iowa 52361

13. CHECK BOX BELOW FOR EACH ATTACHMENT SUBMITTED:

- ☒ 13A. Exhibit A, Origin and Breeding History of the Variety (See Section 52 of the Plant Variety Protection Act.)
- ☒ 13B. Exhibit B, Botanical Description of the Variety
- ☒ 13C. Exhibit C, Objective Description of the Variety
- ☐ 13D. Exhibit D, Data Indicative of Novelty
- ☒ 13E. Exhibit E, Statement of the Basis of Applicant's Ownership

14A. Does the applicant(s) specify that seed of this variety be sold by variety name only as a class of certified seed? (See Section 83(a). (If "Yes," answer 14B and 14C below.) ☐ YES ☒ NO14B. Does the applicant(s) specify that this variety be limited as to number of generations? ☐ YES ☐ NO14C. If "Yes," to 14B, how many generations of production beyond breeder seed? ☐ FOUNDATION ☐ REGISTERED ☐ CERTIFIED

The applicant declares that a viable sample of basic seed of this variety will be deposited upon request before issuance of a certificate and will be replenished periodically in accordance with such regulations as may be applicable.

The undersigned applicant(s) of this sexually-reproduced novel plant variety believes that the variety is distinct, uniform, and stable as required in Section 41 and is entitled to protection under the provisions of Section 42 of the Plant Variety Protection Act.

Applicant is informed that false representation herein can jeopardize protection and result in penalties.

11/15/80

(DATE)

Holden's Foundation Seeds Inc.

(SIGNATURE OF APPLICANT)

By Ronald Holden

(SIGNATURE OF APPLICANT)

Origin and Breeding History of Variety

LH 39

LH39 = Ex374 = Oh43 x L120 Selection 2823-11-4-1-7-4-4

Item 1

Item 1 is a schematic outline of the development of LH39. A pedigreed breeding system was used, in which individually selected ears from the previous generation were planted in an ear to row manner. Plants within each row were self-pollinated. Ears from these self-pollinated plants were chosen to perpetuate the system.

Item 2

Item 2 is a collection of copies of pages from Holden's Foundation Seeds' Nursery Books. The rows involved in the development of LH39 have been underscored.

L120 is a Holden's Foundation Seeds' private line. It is related to the Oh43 family of corn, but is agronomically unacceptable as an inbred line.

3

Addendum to Exhibit A:

1) The inbred line LH39 has been self-pollinated and planted ear to row for a sufficient number of generations to assure uniformity and homozygosity of the line.

Ear height, ear type, tassel type, and plant height are very uniform. The three-eared trait will be variable with fluctuations in populations and growing conditions.

2) The Iowa Crop Improvement Association has accepted LH39 for certification, which shows that the line is both uniform and stable.

Enclosed are copies of the foundation tags for LH39 and a copy of Holden's Foundation Seeds field reports indicating which field met certification standards.

All LH39 seed increase fields passed inspection.

8000067

Revised Exhibit B

LH39 is a yellow dent corn inbred. The line most closely resembles Oh43Ht ~~in plant type~~. *R/S 12/4/81 APPROVED BY APPLICANT.*
ON ORIGINAL EXHIBIT B.

However, LH39 is taller than Oh43Ht (203 cm vs. 194 cm), has a higher top ear placement (78 cm vs. 60 cm), and has a greater 3-ear tendency (2.2 ears/stock vs. 1.8 ears/plant). Data and statistical evaluations are given in Tables 1, 2, and 3.

When LH39 is 974.5 heat units into the growing season, the leaves emerging from the whorl are light green with a definite yellow color. Whereas leaves emerging from Oh43Ht at the same growth stage are dark green. Please refer to Supplement to Exhibit B for description of Experiment, color rating data, and photos.

Supplement to Exhibit B
Corn Application No. 8000067, 'LH39'

Alternate rows of Oh43Ht and LH39 were planted June 10, 1981. A total of four 60-foot rows were planted of each variety. Oh43Ht and LH39 were seeded with 100 kernels per row and later thinned to 55 plants per row. The experiment was bordered on each side with Oh43Ht or LH39 to keep the alternating pattern.

The project has been watched periodically from the time of planting to observe any marked differences between LH39 and Oh43Ht.

On July 20, 1981, 974.5* heat units from the date of planting a definite difference was observed. The leaves emerging from the whorl of Oh43Ht are dark green as they unwrap from the center. However, the leaves of LH39 are light green with a very yellow color as they emerge from the whorl. They remain lighter green until they are free of the whorl. When they are free from the whorl, there is no difference in color between an LH39 leaf and an Oh43Ht leaf.

The two rows in the center of Photo # 1 illustrate the difference in color of the leaves in the whorl. Oh43Ht is in the left row; LH39 is in the right row.

The two rows in the center of Photo # 2 illustrate the color difference but with a closer view.

The third photo demonstrates the color difference in a close-up shot. Oh43Ht is on the left, and LH39 is on the right.

To determine the difference per plant, each plant was measured for color. The leaf next to the tightly rolled leaf in the very center of the whorl was measured for color 12 centimeters from the tip of the leaf. The color was measured along the outside edge of the leaf.

Munsell Color Charts for plant tissues (Second Edition revised 1979) was used for color identification.

Copies of the 1981 Summer Record Book for Patent Measurements were made of pages 2-32. These pages include the original readings on the color differences of the leaves in the whorl between LH39 and Oh43Ht. The numbers along the left hand side of the paper are the plant numbers. The row number and the pedigree is specified at the top of each page. The information following each plant number is the color rating for each particular plant of the row mentioned at the top of the page.

* Formula used to determine GDD:

$$\text{GDD} = \frac{\text{T max} + \text{T min}}{2} - 50^{\circ}$$

T max not to exceed 86° F
T min not to be less than 50° F

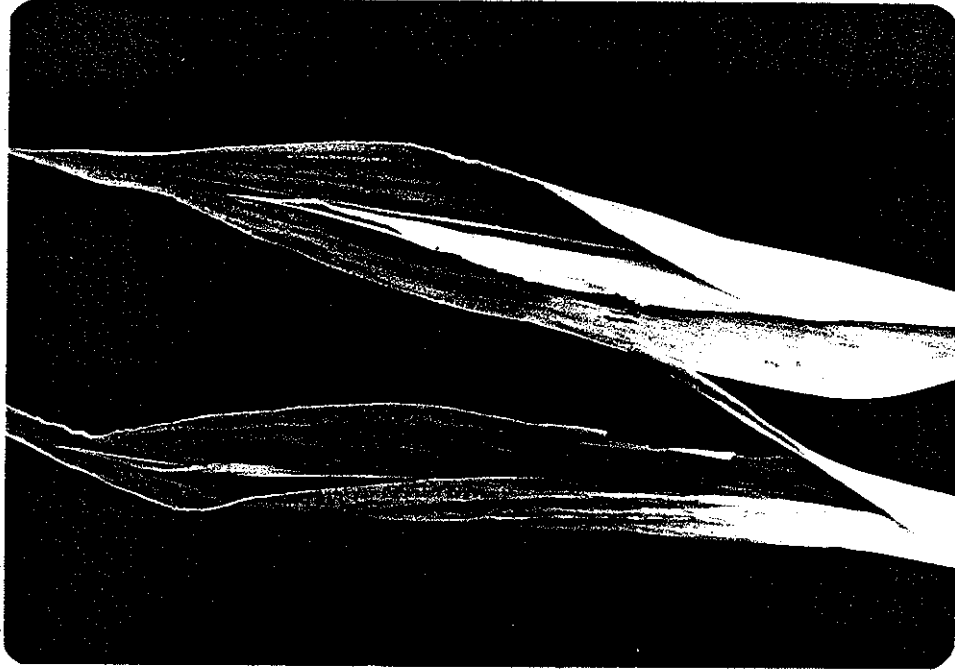


LH39

OH43Hx Photo # 1

Photo # 2

OH43Hx



LH39 Photo # 3



OH43Hx

LH39

See Supplement to Exhibit B
R/S 12/23/81

Supplement to Exhibit B
Corn Application No. 8000067, 'LH39'

Page 2

Plants No. 32 and 33 in Row 27541 were out of the ordinary for color. However, they were both buggy whipped, which I assume caused the abnormal readings.

OBJECTIVE DESCRIPTION OF VARIETY
CORN (ZEA MAYS)

NAME OF APPLICANT(S) Holden's Foundation Seeds, Inc.	FOR OFFICIAL USE ONLY
ADDRESS (Street and No. or R.F.D. No., City, State, and ZIP Code) P.O. Box 299 Williamsburg, Iowa 52361	PVPO NUMBER 8000067
	VARIETY NAME OR TEMPORARY DESIGNATION LH39

Place the appropriate number that describes the varietal character of this variety in the boxes below.
Place a zero in first box (e.g., 0 8 9 or 0 9) when number is either 99 or less or 9 or less.

1. TYPE:

2 1 = SWEET 2 = DENT 3 = FLINT 4 = FLOUR 5 = POP 6 = ORNAMENTAL

2. REGION WHERE BEST ADAPTED IN THE U.S.A.:

2 1 = NORTHWEST 2 = NORTHCENTRAL 3 = NORTHEAST 4 = SOUTHEAST
5 = SOUTHCENTRAL 6 = SOUTHWEST 7 = MOST REGIONS

3. MATURITY (In Region of Best Adaptability):

(Under "comments" (pg. 3) state how heat units were calculated)

6 3	DAYS FROM EMERGENCE TO 50% OF PLANTS IN SILK	1 3 6 0	HEAT UNITS
	DAYS FROM 50% SILK TO OPTIMUM EDIBLE QUALITY		HEAT UNITS
7 0	DAYS FROM 50% SILK TO HARVEST AT 25% KERNEL MOISTURE	1 2 9 3	HEAT UNITS

4. PLANT:

2 0 3 CM. HEIGHT (To tassel tip) 0 7 8 CM. EAR HEIGHT (To base of top ear)
1 0 CM. LENGTH OF TOP EAR INTERNODE

Number of Tillers:

Number of Ears Per Stalk:

1 1 = NONE 2 = 1-2 3 = 2-3 4 = > 3 4 1 = SINGLE 2 = SLIGHT TWO-EAR TENDENCY
3 = STRONG TWO-EAR TENDENCY 4 = THREE-EAR TENDENCY

Cytoplasm Type:

1 1 = NORMAL 2 = "T" 3 = "S" 4 = "C" 5 = OTHER (Specify)

5. LEAF (Field Corn Inbred Examples Given):

Color:

2 1 = LIGHT GREEN (HY) 2 = MEDIUM GREEN (WF9) 3 = DARK GREEN (B14) 4 = VERY DARK GREEN (K166)

Angle from Stalk (Upper half):

Sheath Pubescence:

2 1 = < 30° 2 = 30-60° 3 = > 60° 2 1 = LIGHT (W22) 2 = MEDIUM (WF9)
3 = HEAVY (OH26)

Marginal Waves:

Longitudinal Creases:

2 1 = NONE (HY) 2 = FEW (WF9) 3 = MANY (OH7L) 2 1 = ABSENT (OH51) 2 = FEW (OH56A)
3 = MANY (PA11)

Width:

Length:

1 0 CM. WIDEST POINT OF EAR NODE LEAF 0 7 5 CM. EAR NODE LEAF
1 0 NUMBER OF LEAVES PER MATURE PLANT

6. TASSEL:

NUMBER OF LATERAL BRANCHES

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Branch Angle from Central Spike:

1 = < 30°

2 = 30-40°

3 = > 45°

Peduncle Length:

CM. FROM TOP LEAF TO BASAL BRANCHES

Pollen Shed:

1 = LIGHT (WF9)

2 = MEDIUM

3 = HEAVY (KY21)

Anther Color:

1 = YELLOW

2 = PINK

3 = RED

4 = PURPLE

5 = GREEN

Glume Color:

6 = OTHER (Specify) _____

Pollen Restoration for Cytoplasm (0 = Not Tested, 1 = Partial, 2 = Good)

"T"

"S"

"C"

OTHER (Specify Cytoplasm and degrees of restoration) _____

7. EAR (Husked Ear Data Except When Stated Otherwise):

CM LENGTH

MM. MID-POINT
DIAMETER

GM. WEIGHT

Kernel Rows:

1 = INDISTINCT

2 = DISTINCT

NUMBER

1 = STRAIGHT

2 = SLIGHTLY CURVED

3 = SPIRAL

Silk Color (Exposed at Silking Stage):

1 = GREEN

2 = PINK

3 = SALMON

4 = RED

Husk Color:

FRESH

1 = LIGHT GREEN

2 = DARK GREEN

3 = PINK

DRY

4 = RED

5 = PURPLE

6 = BUFF

Husk Extention: (Harvest Stage)

1 = SHORT (Ears Exposed) 2 = MEDIUM (Barely Covering Ear)
3 = LONG (8-10CM Beyond Ear Tip)
4 = VERY LONG (> 10 CM)

Husk Leaf:

1 = SHORT (< 8 CM) 2 = MEDIUM (8-15 CM)
3 = LONG (> 15 CM)

Shank:

CM LONG

NO. OF INTERNODES

Position at Dry Husk Stage:

1 = UPRIGHT

2 = HORIZONTAL

3 = PENDENT

Taper:

1 = SLIGHT

2 = AVERAGE

3 = EXTREME

Drying Time (Unhusked Ear):

1 = SLOW

2 = AVERAGE

3 = FAST

8. KERNEL (Dried):

Size (From Ear Mid-Point):

MM LONG

MM. WIDE

MM. THICK

Shape Grade (% Rounds)

1 = < 20

2 = 20-40

3 = 40-60

4 = 60-80

5 = > 80

8. KERNEL (Dried):

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Pericarp Color: 1 = COLORLESS 2 = RED-WHITE CROWN 3 = TAN 4 = BRONZE
 5 = BROWN 6 = LIGHT RED 7 = CHERRY RED
 8 = VARIEGATED (Describe) _____

Aleurone Color: 1 = HOMOZYGOUS 2 = SEGREGATING (Describe) _____

1 = WHITE 2 = PINK 3 = TAN 4 = BROWN 5 = BRONZE 6 = RED
 7 = PURPLE 8 = PALE PURPLE 9 = VARIEGATED (Describe) _____

Endosperm Color: 1 = WHITE 2 = PALE YELLOW 3 = YELLOW 4 = PINK-ORANGE 5 = WHITE CAP.

Endosperm Type:

1 = SWEET (su1) 2 = EXTRA SWEET (sh2) 3 = NORMAL STARCH 4 = HIGH AMYLOSE STARCH
 5 = WAXY STARCH 6 = HIGH PROTEIN 7 = HIGH LYSINE 8 = OTHER (Specify) _____

GM. WEIGHT /100 SEEDS (Unsize Sample)

9. COB:

MM. DIAMETER AT MID-POINT

Strength:

1 = WEAK 2 = STRONG

Color:

1 = WHITE 2 = PINK 3 = RED 4 = BROWN
 5 = VARIEGATED 6 OTHER (Specify) _____

10. DISEASE RESISTANCE (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

<input type="text" value="0"/> STALK ROT (Diplodia)	<input type="text" value="0"/> STALK ROT (Fusarium)	<input type="text" value="0"/> STALK ROT (Gibberella)
<input type="text" value="0"/> NORTHERN LEAF BLIGHT	<input type="text" value="0"/> SOUTHERN LEAF BLIGHT	<input type="text" value="0"/> SMUT
<input type="text" value="0"/> SOUTHERN RUST	<input type="text" value="0"/> CORN SMUT	<input type="text" value="0"/> BACTERIAL WILT
<input type="text" value="0"/> BACTERIAL LEAF BLIGHT	<input type="text" value="0"/> MAIZE DWARF MOSAIC	<input type="text" value="0"/> STUNT
<input type="text" value="0"/> OTHER (Specify) _____		

11. INSECT RESISTANCE (0 = Not Tested, 1 = Susceptible, 2 = Resistant):

<input type="text" value="0"/> CORNBORER	<input type="text" value="0"/> EARWORM	<input type="text" value="0"/> SAPBEETLE	<input type="text" value="0"/> APHID
<input type="text" value="0"/> ROOTWORM (Northern)	<input type="text" value="0"/> ROOTWORM (Western)		
<input type="text" value="0"/> ROOTWORM (Southern)	<input type="text" value="0"/> OTHER (Specify) _____		

12. VARIETIES MOST CLOSELY RESEMBLING THAT SUBMITTED FOR THE CHARACTERS GIVEN:

CHARACTER	VARIETY	CHARACTER	VARIETY
Maturity	Oh43 Ht	Kernel Type	Oh43 Ht
Plant Type	Oh43 Ht	Quality (Edible)	Oh43 Ht
Ear Type	Oh43 Ht	Usage	Oh43 Ht

REFERENCES:

U.S. Department Agriculture. Yearbook 1937.
 Corn: Culture, Processing, Products. 1970 Avi Publishing Company, Westport, Connecticut. (Numerous Authors)
 Emerson, R.A., G.W. Beadle, and A.C. Fraser. A Summary of Linkage Studies in Maize. Cornell A.E.S., Mem. 180. 1935.
 The Mutants of Maize. 1968. Crop Science Society of America. Madison, Wisconsin.
 Stringfield, G.H. Maize Inbred Lines of Ohio. Ohio A.E.S. Bul. 831. 1959.
 Butler, D.R. 1954 - A System for the Classification of Corn Inbred Lines - PhD. Thesis, Ohio State University.

COMMENTS:

G.D.D. = $\sum \frac{Hi Temp \leq 86^{\circ} + Low Temp \geq 50^{\circ}}{2} - 50^{\circ}$

TABLE 1

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Plant Height in Inches
Oh43Ht vs. LH39

EXHIBIT D

Rep I		Rep II		Rep III	
Oh43Ht	LH39	Oh43Ht	LH39	Oh43Ht	LH39
74	84	68	76	75	75
81	69	78	76	72	83
73	78	76	79	74	74
78	78	79	82	77	76
69	81	81	82	72	73
69	77	72	84	79	79
80	79	74	82	75	75
75	85	84	76	74	72
80	74	80	85	82	84
81	82	74	80	78	84
70	80	76	77	77	85
74	81	80	83	82	78
68	85	74	78	87	78
77	79	76	74	86	75
73	79	83	78	74	82
76	80	82	75	72	82
82	77	78	79	69	77
76	80	71	79	77	79
74	84	75	85	83	79
76	82		80	78	83
	80		80	75	83
	78		81	72	79
	82		83	74	87
	85		89	83	85
	89				83
	81				
	82				
Oh43Ht	\bar{D}	LH39			
N	63	76			
\bar{X}	76.41	3.64**		80.05	
Var.	19.45	.00372		15.00	

8000067

TABLE 2

EXHIBIT D

Ear Height from Ground to Base of Top Ear
Oh43Ht vs. LH39

Rep I		Rep II		Rep III	
Oh43Ht	LH39	Oh43Ht	LH39	Oh43Ht	LH39
24.0	29.5	21.0	21.5	23.5	26.0
22.0	32.5	20.0	31.0	19.5	25.0
23.0	32.5	24.5	27.0	25.5	31.5
25.0	36.0	23.0	32.5	23.5	24.0
21.5	32.0	28.0	28.5	22.0	26.5
24.5	27.0	24.0	37.0	18.0	30.0
23.0	28.0	30.0	28.5	19.5	28.5
24.0	31.5	27.0	26.0	22.0	29.0
25.0	28.5	23.0	33.0	25.5	32.0
29.0	29.5	26.5	33.0	23.5	33.5
31.0	34.0	25.5	37.0	26.0	31.0
23.0	39.0	25.0	27.0	19.0	32.0
23.0	34.0	25.0	34.5	27.0	31.5
23.5	34.5	26.0	28.5	24.5	26.5
25.5	26.5	28.5	29.5	19.0	27.0
26.0	31.0	24.0	26.5	22.5	29.5
23.5	33.0	24.0	31.5	12.5	25.5
26.0	29.0	26.5	25.0	20.0	27.0
19.5	31.5	31.0	35.0	22.5	25.5
25.5	28.0		34.0	27.5	33.0
24.0	35.0		32.0	18.5	27.5
	30.5		37.0	21.5	37.0
	32.5		30.5	23.5	33.0
	34.0		30.0	20.0	34.0
	33.0				31.5
	31.0				
	30.0				
N	64		76		
\bar{X}	23.76	7.12**	30.88		
Var.	10.453	0.33178	12.802		

8000067

EXHIBIT D.

TABLE 3

Number of Ears/Stalk
Oh43Ht vs. LH39

	Rep I		Rep II		Rep II	
	Oh43Ht	LH39	Oh43Ht	LH39	Oh43Ht	LH39
	2	2	2	3	3	3
	2	2	2	2	2	3
	2	2	2	2	2	2
	2	3	1	3	2	2
	2	3	2	2	1	3
	2	2	2	3	1	2
	1	3	2	3	1	2
	2	3	2	2	1	2
	2	2	2	2	1	2
	2	3	2	2	1	3
	2	2	2	2	1	2
	2	3	2	2	2	3
	1	3	2	2	1	2
	2	2	2	2	1	3
	2	2	2	2	2	2
	2	2	2	2	2	3
	2	2	1	2	1	3
	2	2	2	3	2	2
	2	2	3	2	2	2
	2	2		2	1	2
	2	3		2	2	3
	2	2		3	2	2
		2		2	2	2
		2		2	2	3
		3				2
		2				
N	65	D	LH39	77		
\bar{X}	1.80	0.54**	2.34			
Var.	0.222	.00632	0.224			

LH39 vs Oh43 HE - R/S 12/22/81

<u>Trait Compared</u>	<u>Difference</u>	<u>Level of Sig. Difference</u>
Plant Height (in.)	3.64	.01
Top ear node length (in.)	0.27	.01
No. ears/plant	0.54	.01
Ear height (in.)	7.12	.01
Peduncle length	0.39	.05
No. of nodes/shank	0.89	.01
Ear diameter (in.)	0.23	.01
Ear node leaf length (in.)	0.94	.05
Ear weight (g)	26.59	.01

Ref.:

STATISTICAL METHODS: Snedecor + Cochran

Sample 1

Compute \bar{x}_1

$$\text{compute } s_1^2 = \left(\frac{\sum x_1^2 - \frac{(\sum x_1)^2}{n_1}}{n_1 - 1} \right)$$

Sample 2

Compute \bar{x}_2 Compute s_2^2

$$\bar{D} = \bar{x}_1 - \bar{x}_2$$

$$s_{\frac{D}{D}}^2 = \frac{s_1^2}{n_1} + \frac{s_2^2}{n_2}$$

$$LSD_{\alpha} = t_{\alpha} \sqrt{s_{\frac{D}{D}}^2}$$

$$\text{Degrees of freedom} = n_1 + n_2 - 2$$

Exhibit E:

Holden's Foundation Seeds, Williamsburg, Iowa, is employer of the plant breeders involved in the development of LH39.

Holden's Foundation seeds have the sole rights and ownership of LH39.

rec'd
3/4/80
9:00 am